

CLEAN VERSION OF AMENDED CLAIMS

1 7. (New) Nanosized Group VI transition metal catalysts for use in producing mixed
2 alcohols from gases including carbon monoxide and hydrogen, wherein said nanosized Group VI
3 transition metal catalysts are produced by selecting Group VI metals, and mixtures thereof, and
4 then nanosizing said Group VI metals, and mixtures thereof to a mean particle diameter in the
5 range of about 1 nm to about 100 nm.

1 8. (New) Nanosized Group VI transition metal catalysts of claim 7 wherein said
2 Group VI metals, and mixtures thereof are selected from Cr, MO and W, and mixtures thereof.

1 9. (New) The nanosized Group VI transition metal catalysts, and mixtures thereof of
2 claim 7 wherein the method of producing said Group VI metals and mixtures thereof catalysts
3 includes the step of sulfiding said nanosized Group VI metal and Group VI metal mixture
4 catalysts.

b' 1 10. (New) Nanosized Group VI transition metal catalysts of claim 9 wherein said
2 Group VI metals, and mixtures thereof are selected from Cr, MO and W, and mixtures thereof.